



TATA STEEL



www.tatasteelpackaging.com

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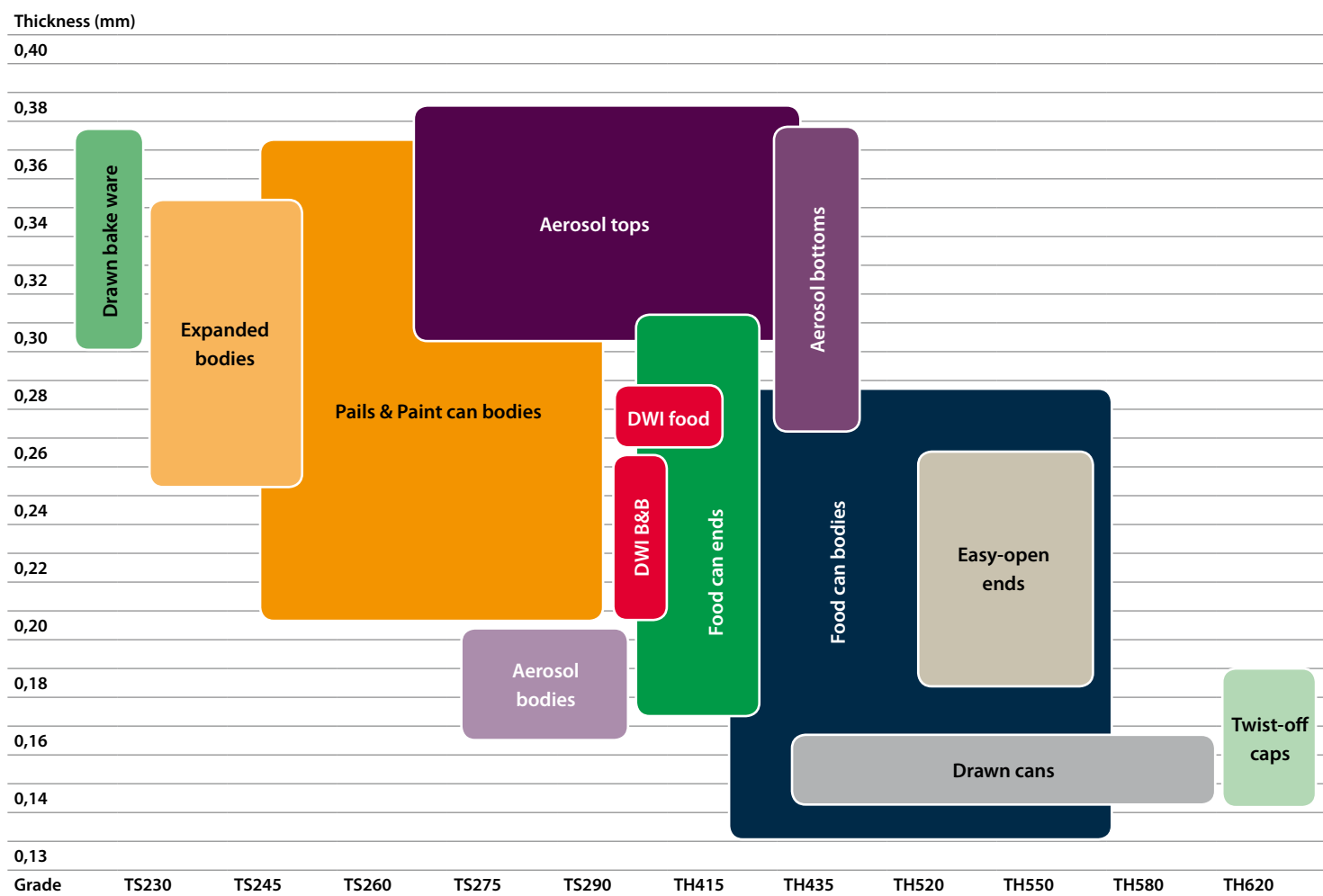
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Tata Steel IJmuiden BV

Steel for packaging applications
Product range & technical specifications



Tata Steel Packaging

General specification window for packaging applications



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HIGH PERFORMANCE STEEL FOR PACKAGING

A comprehensive product portfolio for demanding canmaking operations

Tata Steel Packaging's range of products includes; tinplate, tin-free steels (ECCS), blackplate, and our market leading Protact® polymer-coated steel. The range includes; clean steels for DWI, high strength formable steels for easy-open-ends and coated steels ideally suited to coil-fed canmaking operations.

Our manufacturing base produces reliable high performance steel grades. We provide our steel in lengths and widths that are specific to each process. We have the flexibility and expertise to tailor products to meet specific end-application requirements. Our partners value our on-site support to optimise the process efficiency of canmaking.

We have the technical expertise of a dedicated packaging steel manufacturer. Wide experience and advanced techniques like Finite Element Analysis and Electrochemical Impedance Spectroscopy, have helped our partners create even more efficient designs for their products and improve pack performance. Our product testing facility helps to bring packaging solutions to market faster.

Downgauging is an important trend in the metal packaging industry for both efficiency and sustainability. We collaborate with canmakers on a dedicated project-by-project basis for mutual benefit.

We encourage sustainability by focusing on manufacturing efficiency and waste reduction. Working with national industry associations, we champion how steel is truly recyclable and 100 per cent sustainable. Steel is the most

recycled packaging material. Only steel has a recycling rate of over 70 per cent - the highest of all. Steel can be used and recycled infinitely with no loss of quality. Each recycled can saves a measurable quantity of virgin material.

For more detailed product information or to find out how partnership with us can optimise your business, please contact us on +31 (0)251 49 31 86 or email info@tatasteelpackaging.com



Standards

Tinplate and ECCS (TFS)	Blackplate
Euronorm 10202	Euronorm 10205
ASTM 623 (on request)	

Tata Steel Packaging is ISO 9001 certified.

Mechanical properties

	Special	AISI / ASTM	BA / CA	SR / DR	Yield/proof strength [Mpa]	Tensile strength [Mpa]	Range [Mpa]
TS200	Bake ware and extreme deformations		BA	SR	200	320	+/- 50
TS230*		T1	BA	SR	230	325	+/- 50
TS245*		T2	BA	SR	245	340	+/- 50
TS260*			BA	SR	260	360	+/- 50
TS275*		T3	BA	SR	275	375	+/- 50
TS290*			BA	SR	290	390	+/- 50
TS345	Aerosol components		BA	DR	345	400	+/- 50
TS480	More formable DR grade		BA	DR	480	505	+/- 50
TS520	Formable DR Grade	DR 7.5	BA	DR	520	545	+/- 50
TS550*		DR 8	BA	DR	550	575	+/- 50
TH415*		T4	CA	SR	415	435	+/- 50
TH435*		T5	CA	SR	435	460	+/- 50
TH465N	Easy open ends	T5	CA	SR	465	495	+/- 50
TH465	Sanitary ends		CA	DR	465	480	+/- 50
TH480	Easy open and sanitary ends		CA	DR	480	500	+/- 50
TH520*		DR 7.5	CA	DR	520	540	+/- 50
TH550*		DR 8	CA	DR	550	570	+/- 50
TH550N*	Easy open ends	DR 8	CA	DR	550	560	+/- 50
TH580*			CA	DR	580	590	+/- 50
TH620*		DR 9	CA	DR	620	625	+/- 50

*Euronorm designation

Mechanical properties DWI grades

Tinplate for Drawn and Wall Ironed (DWI) applications has specific properties. Tata Steel Packaging offers Boron alloyed extra low carbon, continuous annealed products to ensure excellent formability and highly efficient processing. Through our continuous improvement approach we focus on developing stronger more ductile and formable steel grades to further increase the efficiency of canmaking. These steel grades combine the formability requirements of can making with the strength required of the final pack in beer & beverage and food applications.

DWI grades (B&B and food)	BA / CA	SR / DR	Yield/proof strength [Mpa]	Tensile strength [Mpa]	Range [Mpa]
TH340	CA	SR	340	360	+/- 40
TH360	CA	DR	360	380	+/- 40
TH380	CA	DR	380	400	+/- 40
TH415	CA	SR	415	435	+/- 40

Other grades

On request Tata Steel Packaging can supply other packaging steels with special properties like minimum earing and deep drawing properties.

Metallic coating mass Electrolytic Tinplate and Tin Free Steel (ECCS)

Metallic coating		Min	Max	
Tinplate	Total Tin	1	14	g/m ² per side
Tin free steel (ECCS)	Total Chromium	50	140	mg/m ² per side
	Chromium in Oxide	7	35	mg/m ² per side

Tinplate supplied with either an equal or differential coating. In accordance with EN10202 Tata Steel supplies marker lines for differential coatings

Passivation tinplate	Type	Min (mg/m ² per side)	Max (mg/m ² per side)
Standard cathodic passivation (Sodium Dichromate)	311	3.5	9.0
Single Chemical dip (Sodium Dichromate dip)	300	1.0	3.0

K-plate on request

Oil

After passivation, mill coated products are coated equally on both surfaces with a uniform film of oil which is in accordance with relevant national or international standards for food contact packaging. Tata Steel Packaging complies with 1935/2004/EC and 2023/2006/EC and uses DOS oil as standard oil. Other oils on request.

Surface finish

Product description	Roughness
Super Bright	<0.25 um
Bright	<0.35 um
Fine Stone	0.25 - 0.45 um
Stone	0.35 - 0.60 um
Silver/ Matt ¹⁾	0.80 - 2.50 um

¹⁾ Special roughness range upon request

Dimensions

Product	Coils/sheets* Thickness	Width	Sheets Cut length
Single reduced (SR)	0.17 - 0.49 mm	600 - 1200 mm	457 - 1137 mm (width max. 1018 mm)
Double reduced (DR)	0.13 - 0.26 mm	600 - 1200 mm	457 - 1137 mm (width max. 1018 mm)
Wide DWI	-	Up to 1219 mm	-
Width tolerance	Standard trim	(- 0.00, + 3.00 mm)	
	Special trim	(- 0.00, + 1.00 mm)	
	Super trim	(- 0.25, + 0.00 mm)	

* Other dimensions on request.

* Minimum and maximum dimensions are indicated. Restrictions in the combination of thickness and width may be applicable.

Inside core diameter

Standard: 420 mm. Other diameters on request.

Further processing

On request Tata Steel Packaging can supply scroll cut sheets, slit or lacquered material.

Protact®

Protact® (polymer-coated steel) is a packaging material that combines the performance of packaging steel and the versatility of polymer coatings. Due to this coating Protact® is the high performance packaging steel for a wide range of applications like paint cans, food cans, aerosols and rings for peel-off ends. Protact® delivers a wide range of fillings safely and securely. For further information see our Protact® brochure range.